

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listing, of claims in the application.

Listing of the Claims:

1. (Currently amended) An image processing system including a plurality of linear arrays of detectors (1) imaged onto a scene of interest and an image store for receiving signals from the linear array when a detected object (2) passes through the scene;

~~characterised by~~ wherein

a the plurality of linear arrays (1a-d) of detectors are spaced substantially parallel to one another to image a plurality of areas (4) of interest in a scene; and

the system further comprises a signal processor (7, 16, 17, 18) for detecting images received by the plurality of arrays and determining direction and speed of movement detected.

2. (Currently amended) The system of claim 1 wherein the detectors (1) are infra red detectors.

3. (Currently amended) The system of claim 1 wherein the detectors (1) are visible light sensitive detectors.

4. (Currently amended) The system of claim 1 wherein the detectors (1) are mm wave sensitive detectors.

5. (Currently amended) The system of ~~any preceding~~ claim 1 wherein each detector element in each linear array (1) has associated therewith an independent noise limiting means.

6. (Currently amended) The system of claim 5 wherein the noise limiting means at each detector element comprises an independent amplifier and filter ~~(9)~~.

7. (Currently amended) The system of ~~any preceding~~ claim 1 wherein each detector array ~~(4)~~ has its output read out ~~(10)~~ sequentially from each detector element.

8. (Currently amended) The system of ~~any preceding~~ claim 1 wherein the processor ~~(7)~~ is arranged to determine at least one of detected object range, direction of movement, speed, true direction of travel, object type.

9. (Currently amended) The system of ~~any preceding~~ claim 1 including an additional two-dimensional detector array system ~~(11, 12)~~ which may be switched on when an object ~~(2)~~ is detected.

10. (Currently amended) The system of ~~any preceding~~ claim 1 wherein several systems are combined into a single unit arranged to give about 360° of azimuthal coverage.

11. (Currently amended) The system of ~~any preceding~~ claim 1 wherein outputs from the signal processor are communicated to remote monitoring stations.

12. (Cancelled)